

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

1-21. (canceled)

22. (new) Flexible, longitudinal heating mat having a length L between an upstream end (A) and a downstream end (B), said mat comprising a first track and a second track between two flexible, electrically insulating sheets, said tracks each being formed by a metal film and being adapted to be supplied with electric current thereby to be heated, said tracks being periodically distributed in the longitudinal direction, wherein:

- each track comprises an upstream end (C, D) near the upstream end (A) of the mat and a downstream end (E, F) near the downstream end (B) of the mat,

- the first and second metal tracks extending side by side transversely over virtually the whole width of the mat, and

- the downstream ends (E, F) of the two tracks being free but adapted to be electrically connected to each other before use.

23. (new) Mat according to Claim 22, wherein the first and second tracks form successive half-loops which are imbricated in one another so that, in the longitudinal direction, there will be successively encountered, from the upstream end of the mat to the downstream end of the mat, a first track, then an alternation of two second tracks and of two first tracks.

24. (new) Mat according to Claim 22, wherein the tracks form successive half-loops constituted by transverse parts and longitudinal parts of smaller length, the transverse part of one track being disposed side by side with an adjacent transverse part of the other track.

25. (new) Mat according to Claim 24, wherein the configuration of the tracks is such that they extend successively transversely and longitudinally from one end (A) of the mat to the other (B) while remaining parallel to and interfingering with one another.

26. (new) Mat according to claim 22, wherein the tracks are fixed on at least one of the flexible support sheets (1, 1') by adhesive means.

27. (new) Mat according to Claim 26, wherein the adhesive used is repositionable.

28. (new) Mat according to claim 22, wherein the two flexible insulating sheets (1, 1') are traversed by orifices (30, 32) disposed between the tracks.

29. (new) Mat according to claim 22, wherein one of the flexible insulating sheets (1, 1') is pierced with an orifice (36) giving access to one of the ends of at least one track.

30. (new) Mat according to Claim 29, wherein the orifice (36) giving access to a track is adapted for the electrical connection of a flat conductor on said track.

31. (new) Mat according to claim 22, wherein the metal film is an aluminum film.

32. (new) Mat according to claim 22, wherein the width of the mat is of the order of 0.5 m.

33. (new) Mat according to claim 22, wherein the width of the tracks is of the order of 2.5 cm, and their thickness of the order of 0.25 mm.

34. (new) Mat according to claim 22, wherein the space between the tracks (3a, 3b) is equal to substantially half the width (e) thereof.

35. (new) Mat according to Claim 34, wherein the spacing of the tracks in the longitudinal direction is of the order of 1.5 cm.

36. (new) Mat according to claim 22, wherein the spacing of the tracks in the transverse direction is of the order of 1 cm.

37. (new) Intermediate product for a flexible, longitudinal heating mat having a length L between an upstream end and a downstream end, wherein said intermediate product comprises a flexible, electrically insulating sheet and two series of tracks therein, each series comprising a first and a second track formed by a metal film adapted to be supplied with electric current thereby to be heated, and in which, for each series;

- each track comprises an upstream end near the upstream end of the intermediate product and a downstream end near the downstream end of the intermediate product,

- the tracks are periodically distributed in the longitudinal direction and extend side by side transversely over virtually the whole width of the intermediate product, and

- the downstream ends of the two tracks are free and adapted to be electrically connected to each other before use,

- the tracks being arranged such that they form successive half-loops which are imbricated in one another so that, in the longitudinal direction, there will be successively encountered, from the upstream end of the intermediate product to the downstream end of the intermediate product, a first track, then an alternation of two second tracks and of two first tracks.

38. (new) Intermediate product according to Claim 37, wherein there are successively encountered, in alternation from one end of the mat to the other:

- two first tracks of the first series,
- a first track of the second series,
- a second track of the first series,
- two second tracks of the second series,
- a second track of the first series, and
- a first track of the second series.

39. (new) Method for producing a flexible heating mat in the form of a longitudinal strip forming a breadth having an upstream end (A) and a downstream end (B) and a given width, comprising two conductive tracks (3a, 3b) adapted to be supplied with electric current thereby to be heated and which are disposed between two flexible, electrically insulating support sheets (1, 1'), which comprises the following steps:

- fixing a flexible metal sheet (3) on a flexible, electrically insulating support sheet (1),
- cutting out the metal sheet (3) over at least its thickness, so as to form two heating tracks (3a, 3b) which are periodically distributed in the longitudinal direction, extend side by side transversely over virtually the whole width of the mat and comprise an upstream end (C, D) near the upstream end (A) of the mat and a downstream end (E, F) near the downstream end (B) of the mat, the upstream ends (C, D) of these tracks (3a, 3b)

being adapted to be connected to terminals supplying electric current, and the downstream ends (E, F) of these tracks (3a, 3b) being free and adapted to be electrically connected to each other before use, and

- fixing a second flexible, electrically insulating support sheet (1') on the other face of the tracks (3a, 3b) so that the latter are sandwiched between the two support sheets (1, 1').

40. (new) Method according to claim 39, wherein at least the cut-out step is carried out with the aid of a continuously operating rotary machine.